a.   transmitting a pneumatic pressure pulse along the brake pipe from a

selected HEU to the other railcars;

b.   transmitting an RF signal from the selected HEU to the railcars;

c.   receiving the RF signal at a first railcar;

d.   receiving the pneumatic pressure pulse at the first railcar;

e.   transmitting an RF message from the first railcar to the HEU indicating the

position of the first railcar;

f.   receiving the RF signal [from] transmitted by the first railcar at a second

railcar;

g.   receiving the pneumatic pressure pulse at the second railcar;

h.   transmitting an RF message from the second railcar to the to the HEU

indicating the position of the second railcar; and

k.   for each remaining railcars successively:

(1) receiving at least one RF signal [from] transmitted by another railcar

announcing the transmitting railcar's relative position;

(2) receiving the pneumatic pressure pulse;

(3) determining the relative position of the railcar as a function of the time

between the receipt of the pneumatic pulse and the receipt of the immediately preceding

RF message [from] transmitted by another railcar;

(4) transmitting the determined relative position of the railcar to the HEU.

Claim 23 (original): The method of Claim 22 further comprising the step of

modifying the received pneumatic pulse at each railcar prior to retransmission of the

pneumatic pulse to thereby facilitate the determination of the time of receipt of the pulse at other railcars.

Claim 24 (original): The method of Claim 22 further comprising the step of maintaining a log at each railcar, wherein the log includes the time between the receipt of the pneumatic pulse and the receipt of the immediately preceding RF signal from another railcar.

Claim 25 (original): The method of Claim 24 further comprising steps of transmitting the log from each railcar to the HEU and evaluating the received logs at the HEU to thereby detect errors in the determined position of the railcars.

Claim 26 (original): The method of Claim 23 where the pneumatic pressure pulse is a positive pulse with respect to the normal pressure of the brake pipe.

Claim 27 (original): The method of claim 23 where the pneumatic pressure pulse is a negative pulse with respect to the normal pressure of the brake pipe.

Claim 28 (original): In a train comprising at least one head end unit (HEU) and plural railcars connected by a pneumatic brake pipe and an electrical communications link, a method of determining the relative order of the railcars in the train comprising the steps of:

   a.   transmitting a pneumatic pressure pulse along the brake pipe from the HEU to the plural railcars;

   b.   transmitting an electrical signal from the HEU announcing the transmission of the pressure pulse;

c. transmitting an electrical signal at each car upon receipt of the pressure pulse;

d. determining the relative order at each railcar as a function of the difference between the time of receipt of the pneumatic pressure pulse and the time of receipt of the immediately preceding electrical signal.

Claim 29 (currently amended): In a train comprising at least one head end unit (HEU) and plural railcars, where the HEU and railcars are coupled together through a pneumatic brake pipe and each railcar and HEU contains a communication unit for sending and receiving electrical signals, a method of determining the relative position of each railcar in the train comprising the steps of:

(a) transmitting a pneumatic pulse from the HEU to each railcar through the brake pipe;

(b) transmitting an electrical signal from each railcar to the other railcars and HEU upon receipt of the pneumatic pulse; and

(c) determining the relative position of each railcar in the train as a function of the difference in time between receipt of the pneumatic pulse and the electrical signal [from] transmitted by another railcar.

Claim 30 (original): The method of claim 29 wherein the electrical signal from the step of determining is the immediately preceding electrical signal received from another railcar.

Claim 31 (original): The method of Claim 29 wherein the step of transmitting an electrical signal from each railcar includes announcing the relative position of the transmitting railcar in the train.

Claim 32 (original): In a train comprising at least one head end unit (HEU) and plural railcars where the HEU and railcars are coupled together through a pneumatic brake pipe and each railcar and HEU contains a communication unit for sending and receiving messages, a method of each railcar determining its relative position of each railcar in the train, comprising the steps of:

      a.   transmitting a pneumatic pulse from the HEU to each railcar through the brake pipe;

      b.   transmitting an electrical signal from the HEU to the railcars.

      c.   receiving the pneumatic pulse at a railcar;

      d.   transmitting an electrical signal from each railcar upon receipt of the pneumatic pulse;

      e.   determining the relative position of each railcar in the train as a function of the time of receipt of the pneumatic pulse and the receipt of an electrical signal from another railcar.

Claim 33 (original): The method of Claim 32 wherein the electrical signal from the step of determining is the immediately preceding electrical signal received from another railcar.

Claim 34 (original): The method of Claim 32 wherein the relative order is determined by measuring at each railcar the time between the receipt of the pneumatic pulse and the receipt of the latest received electrical signal from another railcar.

Claim 35 (original): The method of Claim 34 further comprising the step of transmitting the measured information from each railcar to the HEU.

Claim 36 (original): The method of Claim 35 further comprising the step of evaluating the measured data received from the railcars to identify errors in the determined position of the railcars in the train.

Claim 37 (original): The method of Claim 32 wherein the step of transmitting an electrical signal from each railcar includes the step of monitoring for the transmission of other railcars prior to transmitting to thereby avoid having multiple railcars claim the same relative position in the train.

Claim 38 (original): In a train comprising at least one head end unit (HEU) and plural railcars where the HEU and railcars are coupled together through a pneumatic brake pipe and each railcar and HEU contains a communication unit for sending and receiving electrical signals, a method of determining the relative position of each railcar in the train comprising the steps of:

a. transmitting an electrical signal and a pneumatic pulse from the HEU to each railcar;

b. transmitting an electrical signal from each railcar upon receipt of the pneumatic brake pulse;

c.   determining the relative position of each car in the train as a function of the difference in time between the receipt of the pressure pulse and the receipt of the last received electrical signal.

Claim 39 (original): The method of Claim 38 wherein the step of transmitting an electrical signal from each railcar comprises transmitting the determined position of the railcar in the train.

Claim 40 (original): The method of Claim 38 further comprising the step of:

d.   modifying the received pneumatic pulse at each railcar prior to retransmission of the pneumatic pulse to thereby facilitate the determination of the time receipt of the pulse at other railcars.

Claim 41 (currently amended): In a method of determining the relative position of plural railcars in a train having at least one head end unit ("HEU") where the HEU and all of the railcars are connected by pneumatic and wireless communication systems, the improvement wherein each railcar determines its relative position in the train from the difference in time between the receipt of a pneumatic signal originating from the HEU and the receipt of a wireless signal [from] transmitted by the immediately preceding railcar.

Claim 42 (original): The method of Claim 41 wherein the railcar originating the wireless signal changes as a function of the receipt of the pneumatic signal at the railcars in the train.

Claim 43 (previously amended): In a method of determining the relative position of plural railcars in a train having at least one head end unit ("HEU") where the HEU and all of the cars are connected by a common pneumatic communication system and where the HEU and each of the railcars is connected to a plurality of the railcars by a wireless communication system, the improvement wherein each railcar determines its relative position in the train using the time of receipt of the signal received over the wireless communication system in closest proximity to receipt of a pneumatic signal.

Claim 44 (currently amended): In a train comprising at least one head end unit (HEU) and a plurality of railcars connected by a pneumatic brake pipe and an electrical communications link with each railcar in the train and the HEU, a method of determining the order of the railcars comprising:

a.   transmitting a pneumatic pressure pulse along the brake pipe so as to travel in sequence to each railcar of said plurality of railcars;

b.   receiving the pneumatic pressure pulse at the railcars in the train;

c.   transmitting an electrical signal from each of the plurality of railcars indicative of the time at which the pneumatic pressure pulse was received at the respective rail car; and

d.   determining the order of the railcars in the train based on the time of receipt of the electrical signals transmitted by the plurality of railcars.

Claim 45 (original): The method of Claim 44 further comprising establishing and recording the order of the railcars at the HEU.

Claim 46 (original): The method of Claim 44 wherein the electrical signal comprises a unique address assigned to each railcar based on the time at which the pneumatic pressure pulse reached the transmitting railcar.

Claim 47 (original): The method of Claim 46 wherein the unique address is a numerical identifier indicating the position of the other railcars in the train.

Claim 48 (original): The method of Claim 47 wherein each one of the plurality of railcars self-determines the unique address based on the position of the railcar in the train.

Claim 49 (original): The method of Claim 48 wherein each railcar transmits an address-containing electrical signal after self-determining a unique address, and wherein subsequent railcars self-determine an address based on the address-containing electrical signal received from previous railcars in the train.

Claim 50 (original): The method of Claim 44 wherein upon receiving the pneumatic pressure pulse, the receiving railcar vents the segment of the brake pipe on the receiving railcar.

Claim 51 (original): In a train comprising at least one head end unit (HEU) and a plurality of railcars connected by a pneumatic brake pipe and an electrical communications link with each railcar in the train and the HEU, a method of determining the order of the railcars comprising:

a.   transmitting a first electrical signal from the HEU to the plurality of railcars announcing the transmission of a pressure pulse along the brake pipe;

b.   transmitting a pneumatic pressure pulse on the brake pipe to the plurality of railcars, wherein the pneumatic pressure pulse is received at each of the plurality railcars after receipt of the first electrical signal;

c.   transmitting a second electrical signal from each of the plurality of railcars indicative of the time at which the pneumatic pressure pulse was received at the respective rail car the transmitting railcar.

52. (previously amended): In a train comprising at least one head end unit (HEU) and a plurality of railcars connected by a pneumatic brake pipe and an electrical communications link with each railcar in the train and the HEU, a method of determining the order of the railcars comprising:

a.   transmitting a first electrical signal from the HEU to the plurality of railcars announcing the transmission of a pressure pulse along the brake pipe ;

b.   transmitting a pneumatic pressure pulse on the brake pipe to the plurality of railcars, wherein the pneumatic pressure pulse is received at each of the plurality of railcars after receipt of the first electrical signal;

c.   transmitting a second electrical signal from each of the plurality of railcars indicative of the time at which the pneumatic pressure pulse was received at the respective rail car the transmitting rail car;

d.   determining the order of the railcars in the train based on the time of receipt of the second electrical signals.

Claim 53 (original): The method of Claim 52 further comprising establishing and recording the order of the railcars at the HEU.

54. (previously amended): The method of Claim 52 wherein the second electrical signal is indicative of a unique address assigned to each railcar based on the time at which the pneumatic pressure pulse reached the transmitting rail car.

55. (previously amended): The method of Claim 52 wherein the second electrical signal comprises a unique address indicating the position of the railcar in the train, and wherein the second electrical signal is received by at least one other of the plurality of railcars for use in determining the position of the receiving railcar in the train.

Claim 56 (original): The method of Claim 54 wherein the unique address is transmitted from each one of the plurality of railcars to the HEU in response to a polling signal transmitted from the HEU.

57. (previously amended): In a train comprising at least one head end unit (HEU) and plural railcars connected by a pneumatic brake pipe and an electrical communications link, a method of determining the relative order of the railcars in the train comprising the steps of:

    a.   transmitting a first electrical signal announcing a transmission of a pressure pulse along the brake pipe to the railcars;

    b.   transmitting a pneumatic pressure pulse along the brake pipe to the plurality of railcars, with each railcar receiving the pneumatic pulse at a different time from that of the other railcars in the train, with said time being later than that of the preceding railcars and earlier than that of successive railcars;